

## NODE 1/PMA 1 PRE-INGRESS HEATER RECONFIGURATION

1. VERIFY PMA 1 AND NODE 1 A HEATERS INHIBITED

PCS

Node 1: TCS

√PMA1 Htr A Availbty (four) - Inh

√NODE1 Htr A Availbty (nine) - Inh

2. INHIBIT PMA 1 AND NODE 1 B HEATERS

PCS

Node 1: TCS

'PMA1'

NOTE

PMA 1 Heater 4B is not active and does not appear on the PCS NODE 1 TCS Display.

sel PMA1(NODE1) Htr[X(Y)]B [X] =

[Y] =

sel PMA1(Nod1) Htr[X(Y)]B Htr Commands

**cmd Inh Execute**

√PMA1(Nod1) Htr[X(Y)]B Availbty - Inh

Repeat

3. MODIFY SETPOINTS FOR ALL PMA 1 HEATER TEMP SENSORS

PCS

Node 1: TCS

'PMA1'

NOTE

1. PMA 1 Heaters 2A and 4B are not active and do not appear on the PCS NODE 1 TCS Display.

2. Heater setpoint commanding is nominally performed by the **MCC-H** and will be accomplished using the Command Manager. If heater setpoint commanding is performed by the onboard crew, the PCS displays will be used to send the commands. The steps below provide display navigation for the onboard crew using a PCS.

sel PMA1 Htr[X(Y)]A(B) [X] =      
[Y] =

sel PMA1 Htr[X(Y)]A(B) Htr Commands

NOTE

Specific values to be entered in the template command below for each PMA 1 Temperature Sensor are provided in Table 1. PMA 1/Node 1 Heater Configuration Table. Values are provided for each of the five items in the template: Upper Setpoint, Failure Upper Limit, Lower Setpoint, Failure Lower Limit, and Cyclic Load Delta.

**cmd** Update PMA1 Htr[X(Y)]A(B) Temp Snsr Setpts  
sel Upper Setpoint  
Failure Upper Limit  
Lower Setpoint  
Failure Lower Limit  
Cyclic Load Delta **Execute**

NOTE

The specific values to be verified in the step below are provided in Table 1.

√PMA1 Htr[X(Y)]A(B) Upper Setpoint  
√Failure Upper Limit  
√Lower Setpoint  
√Failure Lower Limit  
√Cyclic Load Delta

Repeat

PCS 4. MODIFY SETPOINTS FOR ALL NODE 1 HEATER TEMP SENSORS

Node 1: TCS  
  
'NODE1'

NOTE

Heater setpoint commanding is nominally performed by the **MCC-H** and will be accomplished using the Command Manager. If heater setpoint commanding is performed by the onboard crew, the PCS displays will be used to send the commands. The steps below provide display navigation for the onboard crew using a PCS.

sel NODE 1 Htr[X]A,B [X] =

sel Nod1 Htr[X]A,B Htr Commands

**NOTE**

1. Specific values to be entered in the template command below for each Node 1 Temperature Sensor are provided in Table 1. Values are provided for each of the five items in the template: Upper Setpoint, Failure Upper Limit, Lower Setpoint, Failure Lower Limit, and Cyclic Load Delta.
2. As depicted on the PCS NODE 1 TCS display, ten of the eighteen Node 1 Heaters have two temperature sensors (Heaters 1A, 1B, 3A, 3B, 5A, 5B, 6A, 6B, 7A, and 7B). For these heaters, setpoints for both temperature sensors must be changed. Values for both sensors are provided in Table 1.

**cmd** Update Nod1 Htr[X]A,B Temp Snsr Setpoints

sel Upper Setpoint  
Failure Upper Limit  
Lower Setpoint  
Failure Lower Limit  
Cyclic Load Delta **Execute**

**NOTE**

The specific values to be verified in the step below are provided in Table 1.

- √Nod1 Htr[X]A,B Upper Setpoint
- √Failure Upper Limit
- √Lower Setpoint
- √Failure Lower Limit
- √Cyclic Load Delta

Repeat

TABLE 1. PMA 1/NODE 1 HEATER CONFIGURATION  
PRE-INGRESS HEATER RECONFIG

PMA 1 HEATERS - ALL TEMPS IN °C (°F)

HEATER	AVAIL- ABILITY	UPPER SETPOINT	FAILURE UPPER LIMIT	LOWER SETPOINT	FAILURE LOWER LIMIT	CYCLIC LOAD DELTA
1A	Inh	23.9 (75)	45.0 (113)	21.1 (70)	-17.8 (0)	5.6 (10)
1B	Inh	23.9 (75)	45.0 (113)	21.1 (70)	-17.8 (0)	5.6 (10)
2B	Inh	23.9 (75)	45.0 (113)	21.1 (70)	-17.8 (0)	5.6 (10)
3A	Inh	23.9 (75)	45.0 (113)	21.1 (70)	-17.8 (0)	5.6 (10)
3B	Inh	23.9 (75)	45.0 (113)	21.1 (70)	-17.8 (0)	5.6 (10)
4A	Inh	23.9 (75)	45.0 (113)	21.1 (70)	-17.8 (0)	5.6 (10)
5A	Inh	23.9 (75)	45.0 (113)	21.1 (70)	-17.8 (0)	5.6 (10)
5B	Inh	23.9 (75)	45.0 (113)	21.1 (70)	-17.8 (0)	5.6 (10)

NODE 1 HEATERS - ALL TEMPS IN °C (°F)

HEATER (SENSOR)	AVAIL- ABILITY	UPPER SETPOINT	FAILURE UPPER LIMIT	LOWER SETPOINT	FAILURE LOWER LIMIT	CYCLIC LOAD DELTA
1A (Snsr 1)	Inh	25.6 (78)	45.0 (113)	23.3 (74)	-17.8 (0)	5.6 (10)
1A (Snsr 2)		25.6 (78)	45.0 (113)	23.3 (74)	-17.8 (0)	5.6 (10)
1B (Snsr 1)	Inh	25.6 (78)	45.0 (113)	23.3 (74)	-17.8 (0)	5.6 (10)
1B (Snsr 2)		25.6 (78)	45.0 (113)	23.3 (74)	-17.8 (0)	5.6 (10)
2A	Inh	23.3 (74)	45.0 (113)	20.6 (69)	-17.8 (0)	5.6 (10)
2B	Inh	23.3 (74)	45.0 (113)	20.6 (69)	-17.8 (0)	5.6 (10)
3A (Snsr 1)	Inh	23.9 (75)	45.0 (113)	20.0 (68)	-17.8 (0)	5.6 (10)
3A (Snsr 2)		23.9 (75)	45.0 (113)	20.0 (68)	-17.8 (0)	5.6 (10)
3B (Snsr 1)	Inh	23.9 (75)	45.0 (113)	20.0 (68)	-17.8 (0)	5.6 (10)
3B (Snsr 2)		23.9 (75)	45.0 (113)	20.0 (68)	-17.8 (0)	5.6 (10)
4A	Inh	23.3 (74)	45.0 (113)	20.0 (68)	-17.8 (0)	5.6 (10)
4B	Inh	23.3 (74)	45.0 (113)	20.0 (68)	-17.8 (0)	5.6 (10)
5A (Snsr 1)	Inh	24.4 (76)	45.0 (113)	21.1 (70)	-17.8 (0)	5.6 (10)
5A (Snsr 2)		24.4 (76)	45.0 (113)	21.1 (70)	-17.8 (0)	5.6 (10)
5B (Snsr 1)	Inh	24.4 (76)	45.0 (113)	21.1 (70)	-17.8 (0)	5.6 (10)
5B (Snsr 2)		24.4 (76)	45.0 (113)	21.1 (70)	-17.8 (0)	5.6 (10)
6A (Snsr 1)	Inh	24.4 (76)	45.0 (113)	21.7 (71)	-17.8 (0)	5.6 (10)
6A (Snsr 2)		24.4 (76)	45.0 (113)	21.7 (71)	-17.8 (0)	5.6 (10)
6B (Snsr 1)	Inh	24.4 (76)	45.0 (113)	21.7 (71)	-17.8 (0)	5.6 (10)
6B (snsr 2)		24.4 (76)	45.0 (113)	21.7 (71)	-17.8 (0)	5.6 (10)
7A(Snsr 1)	Inh	21.7 (71)	45.0 (113)	20.0 (68)	-17.8 (0)	5.6 (10)
7A (Snsr 2)		21.7 (71)	45.0 (113)	20.0 (68)	-17.8 (0)	5.6 (10)
7B (Snsr 1)	Inh	21.7 (71)	45.0 (113)	20.0 (68)	-17.8 (0)	5.6 (10)
7B (Snsr 2)		21.7 (71)	45.0 (113)	20.0 (68)	-17.8 (0)	5.6 (10)
8A	Inh	21.7 (71)	45.0 (113)	19.4 (67)	-17.8 (0)	5.6 (10)
8B	Inh	21.7 (71)	45.0 (113)	19.4 (67)	-17.8 (0)	5.6 (10)
9A	Inh	23.3 (74)	45.0 (113)	20.0 (68)	-17.8 (0)	5.6 (10)
9B	Inh	23.3 (74)	45.0 (113)	20.0 (68)	-17.8 (0)	5.6 (10)